

NOTES AND DESCRIPTIONS OF NEW SPECIES
OF LUCANIDÆ AND CERAMBYCIDÆ
(COLEOPTERA) FROM WESTERN
NORTH AMERICA

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LUCANIDÆ
Platycerus Geof.

The genus *Platycerus* is in the main Holarctic, with the bulk of its species in North America, particularly on the Pacific Coast. During recent years a number of new forms have been described from this country which careful field observations and larger series than were formerly available have shown to have unequal standings. Some are without doubt very distinct species, others geographical races or subspecies, while many are nothing more than mere individual variations or even absolute synonyms. I am now convinced that there are not more than nine good species, even including the one which I will add. The following table, descriptions and notes will, I hope, show this.

SYNOPTIC KEY

1. Antennal club composed of four unilaterally dilated segments, males with larger heads and much larger mandibles than females 2
- Antennal club composed of but three unilaterally dilated segments, males with mandibles hardly larger than those of females 4
2. Seventh antennal segment of male almost as large as eighth, mandibles of males with large tubercle on outer side near base, the sides almost straight and convergent, with numerous teeth on inner face near apex, color black or with but a faint bronzing of the elytra.....*depressus* Lec.
- Seventh antennal segment of male much smaller than eighth, mandibles of males ending in three cusps and without teeth on inner edge near apex, upper surface somewhat bluish, greenish or bronzed 3
3. Male mandibles obliquely sinuate on outer margin, head and pronotum rather closely punctured, pronotum without longitudinal impression at middle, lateral margins quite wide, color of upper surface variable, bluish, greenish or bronzed.....
.....*quercus* Web.
- Male mandibles to a great extent arcuate on outer margin, head and pronotum not closely punctured, pronotum with

- evident longitudinal impression at middle, lateral margins rather narrow, species normally much larger than preceding, head and pronotum black, faintly bronzed at most, elytra blue or somewhat greenish.....*oregonensis* Westw.
4. Males more elongate, parallel and less convex than females, club of antennæ as long or longer than funicle, middle and hind tibiæ long and narrow, armed with but few sharp teeth..... 5
- Males robust like females, club of antennæ shorter than funicle, middle and hind tibiæ very robust and heavily armed with series of short spines..... 9
5. Species either rufous or somewhat piceous and generally with a pronounced bronze luster, elytra with definitely impressed striæ or striate arrangement of punctures..... 6
- Species piceous or black and with the faintest trace of bronzing at most, elytra with striæ not clearly defined..... 8
6. Sides of prothorax sinuate behind and hind angles right-angled, genæ hardly more prominent than eyes, prothorax with lateral margin of moderate width, disk closely punctured, especially at sides, elytra with striæ always well impressed, color rufopiceous with marked bronze luster.....*agassizi* Lec.
- Sides of prothorax oblique or hardly sinuate behind, with hind angles obtuse; lateral margins broad, disk not very closely punctured even at sides..... 7
7. Upper surface with a definite æneous luster, genæ not more prominent than eyes, anterior margin of prothorax slightly emarginate; strial punctures of elytra more prominent than interstitial, disk quite convex even in males.....*æneus* sp. nov.
- Upper surface rufocastaneous on rufopiceous (females), without marked bronze luster, genæ decidedly more prominent than eyes, head in front of eyes wedge-shaped, anterior margin of prothorax rather deeply emarginate, strial punctures of elytra not more prominent than interstitial, the elytral punctuation thus somewhat confused, males quite flat and with very broad margins to prothorax.....*laticollis* Casey
8. Sides of prothorax broadly, rather evenly arcuate, strongly sinuate behind, with hind angles right or acute, side margin decidedly reflexed; head and pronotum coarsely, closely punctured, pronotum less closely in females; elytra coarsely and quite irregularly punctured, the strial and interstitial punctuation not readily separable; color piceous.....*latus* Fall
- Sides of prothorax in front oblique, divergent behind and hardly arcuate to well behind middle, then broadly rounded and sinuate to hind angles which are right or acute; head coarsely, closely punctured, pronotum more finely; elytra very finely, irregularly and not closely, especially in females; strial arrangement of punctures only evident here and there; color dull black.....*opacus* Fall

9. Sides of prothorax broadly rounded at middle, oblique in front and behind or the latter slightly sinuate, with hind angles obtuse, side margin very narrow; elytra with stria arrangement well indicated, the alternate intervals slightly elevated, punctures rather numerous and but moderately coarse, color rufopiceous or piceous and not bronzed.....*keeni* Casey

PLATYCERUS DEPRESSUS Lec.

This is the most northern of our species and the one with the greatest longitudinal range. The western phase lives in old rotting aspen logs, *Populus tremuloides* Michx. The typical form, black with somewhat bronzed elytra, extends from Nova Scotia and northern New England to the Lake Superior region. The subspecies *marginalis* Casey, black without bronze luster, larger, broader, with the elytral striæ finer and the punctuation less deep than the other, ranges throughout the entire Rocky mountain region including the Wasatch Mountains of Utah and the high Cascade and Sierra Nevada mountains. A second subspecies which I will now describe has recently been found.

Platycerus depressus cribripennis Van Dyke
new subspecies

Dull black, almost subopaque. Head broad in male, coarsely, deeply punctured, genæ prominent, subangulate at apex, with narrow margins; male mandibles with the outer basal tooth acute and upturned. Prothorax in general similar to typical form and *marginalis* but with hind angles sharply rectangular and lateral margins narrow. Elytra with humeral tooth lacking and the surface coarsely, deeply, closely, and cribrately punctured, with neither striæ nor intervals defined. Male, length 12.5 mm., breadth 4.5 mm.; female, length 12 mm., breadth 5 mm.

The females as usual have smaller heads and narrower prothorax than the males, with more closely punctured heads and slightly broader elytra.

Holotype, male, No. 2533, and *allotype*, No. 2534, Mus. Calif. Acad. Sci., and one *paratype* in the Slevin collection of the California Academy of Sciences. All three specimens were collected by Mr. L. S. Slevin at Tassajara, Monterey County, California, the holotype, May 25, the others May 21, 1920. The male was found on an alder log.

This insect is so distinct superficially because of its subopaqueness, coarse and cribrate type of elytral punctuation, narrower thoracic margins, and other minor features, that one

would almost be justified in considering it a good species. It, however, possesses the characteristic facies and fundamental characters which are so distinctive of *depressus* and its closer subspecies *marginalis*. In view of this, and knowing how greatly the various races of other Lucanidæ vary as to surface sculpturing, I feel that it is better to place it as a subspecies.

PLATYCERUS QUERCUS Web.

A widely distributed species throughout the region east of the Mississippi River and quite variable, especially as to color. The so-called varieties *angustus* Casey and *iowanus* Casey are so poorly defined that I think them hardly worth recognizing. They should be placed with *securidens* Say and ? *virescens* (Fab.) as synonyms.

PLATYCERUS OREGONENSIS Westw.

This is in many ways but a larger relative of *quercus*, replacing it on the Pacific Coast where it is widely distributed from British Columbia to southern California. The typical form with a distinctive bluish color breeds in the rotting trunks of a number of our softwood trees such as alder and California laurel, *Umbellularia californica* Nutt. and the introduced Australian blue gum, *Eucalyptus globulus* Labill., and like most of its larger relatives varies greatly in size and shape. Along the sea beaches of the Oregon coast there is a phase which generally lacks the bluish color, being as a rule black with a slight greenish luster. The mandibles of the males also appear to be more horizontal, less elevated at the apex, than in typical forms. It, however, gradually grades into the typical form. *Cærulescens* Lec. and *chalybæus* Casey are absolute synonyms.

PLATYCERUS AGASSIZI Lec.

This is a coastal species ranging from just south of San Francisco to middle Oregon. It breeds in several species of oak, madrone, *Arbutus menzesii* Pursh., and so forth, and varies in appearance slightly as regards the males and greatly as regards the females, some of the latter being twice normal size and much more rugose. In the northern part of its range, subspecies replace the typical form. The most frequent of these is *pacificus* Casey of which *californicus* Casey is the female and *peregrinus* Casey, a synonym, a very weak race differing as

regards the male in being somewhat smoother and the female less rugose, with the elytra more distinctly striate. The subspecies *parvicollis* Casey is a fairly distinct subspecies, at least as regards the male which is evidently narrower and more elongate than typical *agassizi* and, as indicated by its name, with a smaller prothorax. *Pacificus* ranges from northern Mendocino County, California, to about Coos Bay, Oregon, while *parvicollis* seems to be limited to Humboldt Bay, California.

Platycerus æneus Van Dyke, new species

Elongate, elliptical, moderately convex, shining, rufopiceous with a pronounced æneous luster, the legs quite rufous. Head with front flattened, coarsely, irregularly and rather closely punctured, with a few semierect hairs, and the usual smooth oblique ridges in front of the eyes; clypeus slightly emarginate in front and depressed, sides oblique, galea lobed and hardly more prominent than eyes; mandibles but moderately prominent, with a blunt tooth near middle of inner margin; antennæ with segments 3 to 7 slightly but gradually increasing in breadth, 8 to 10 broadly unilaterally dilated forming the usual loose club which is slightly longer than funicle, 8 to 9 twice as broad as long, the tenth somewhat pentagonal. Prothorax 1.5 mm. broader than long; sides broadest slightly behind middle, a bit arcuate in front, oblique and but faintly sinuately convergent to obtuse hind angles; base just perceptibly arcuate; side margins broad and considerably reflexed; disk rather coarsely, irregularly and somewhat closely punctured, especially at sides, a longitudinal smooth area at middle, with a faintly impressed line posteriorly. Elytra not quite a third longer than broad, with humeri well rounded, vaguely dentate at most, the sides slightly widened to beyond middle then evenly arcuate to apical angles, the margins quite broad and reflexed, especially posteriorly; disk with striæ finely impressed, in most places indicated only by the moderate-sized, rather closely placed punctures; intervals flattened and irregularly punctured with well-spaced punctures. Beneath rather coarsely, regularly and quite closely punctured. Legs long and delicate, front tibiæ distinctly serrate outwardly as usual, middle and hind tibiæ slender, the tarsi long, about equal in length to tibiæ. Length 10 mm., breadth 4.25 mm.

Female generally shorter, broader, more convex and generally robust, more rufous, with æneous luster less pronounced. Head smaller, sides in front more evenly arcuate, mandibles smaller; antennæ shorter, the club smaller and not longer than funicle. Prothorax longer and narrower, with sides quite broadly and evenly arcuate, side margins narrower, the disk more convex. Elytra elliptical, quite convex, the striae punctation more regular and the punctation of intervals finer and sparser. Legs shorter and stouter as

usual, the femora and tibiæ especially so. Length 9.5 mm., breadth 4.5 mm.

Holotype, male, No. 2535, and *allotype*, female, No. 2536, Mus. Calif. Acad. Sci., and several designated *paratypes* from a series of nine specimens collected by myself at Cannon Beach, Clatsop County, Oregon, during June, 1927; the holotype, June 18, the allotype, June 9. Other specimens studied in the collection of the California Academy of Sciences are: two females from Forks, Clallam Co., Wash., collected by Mrs. Helen Van Duzee, July 1, 1920; two males from Hoquiam, Wash., May 27, 1914, and two males from Humptulips, Wash., May 28 and 29, 1914, collected by myself; as well as one male from Tillamook, Ore., July 5-6, 1911, collected by Mr. J. R. Slevin. These are all from the extreme coastal or wet belt of western Washington and northwestern Oregon.

This species is a very distinct one, belonging in the *agassizi* group, in some ways like *Platycerus agassizi* Lec. itself, in other respects more like *laticollis* Casey. From the former and more southern species *æneus* differs by being slightly smaller and shorter, the surface smoother and more shining with an æneous or greenish bronze luster much like that of the cerambycid, *Phymatodes æneus* Lec., the upper surface not so coarsely nor so densely punctured, the elytral intervals never elevated or convex as they are in *agassizi*; the antennal club less developed; the prothorax not so long, the sides not markedly sinuate posteriorly and with hind angles sharply right-angled as in *agassizi*, but the sides oblique and hind angles obtuse with the side margins broader and more broadly reflexed. *Platycerus laticollis* Casey differs from *æneus* by being flatter, with very much broader and flatter elytral margins, by having a heavier antennal club, genæ more prominent than eyes and by being much more rufous and lacking the evident æneous luster.

PLATYCERUS LATICOLLIS Casey

Like *æneus* a well-marked species. It is apparently limited to the coastal mountains west of Corvallis, Oregon, and extends along the coast from Marshfield (Coos Bay) to Newport.

PLATYCERUS LATUS Fall and PLATYCERUS OPACUS Fall

These are two very distinct species, undoubtedly offshoots of the *agassizi* stock and like it having the prothorax very sinuate

behind and with right or acute hind angles. The former is confined to the foothills of the middle Sierra Nevada, Placer and El Dorado counties, and the latter to the more southern Sierra, Tulare and Fresno counties.

PLATYCERUS KEENI Casey

This was described from specimens found on the northern Queen Charlotte Islands, and *Platycerus thoracicus* Casey, from specimens taken on Humboldt Bay, California. Typical specimens of the latter, I have studied from the type locality and I have also taken a good series from Waldport and Cannon Beach, Oregon. The larger specimens of this species, for it may be 12 mm. or over in length and very robust, might be separated from *keeni* by their size and robustness, but the smaller specimens, when carefully compared with typical *keeni* from the type lot, absolutely cannot be separated either by size, appearance or by any character. I am, therefore, reducing the name *thoracicus* Casey to synonymy. *Pedicellaris* Moll. is, of course, also a synonym. *Keeni*, which shows its ancestral connection with *æneus* and *laticollis* by its obtuse prothoracic angles, is one of the most peculiar and distinct in our fauna, being provided with heavy fossorial legs, differs hardly at all as between the sexes, and is confined to the sea-coast sand dunes where it breeds in the old alder and poplar logs which have been cast up by the storms. It has not yet been taken on the Washington nor on the Vancouver Island coast, but no doubt will be.

CERAMBYCIDÆ

Callidium pallidum Van Dyke, new species

Moderately large, robust, broad, rufotestaceous, elytra somewhat lighter; sparsely clothed with long erect pile, the elytra excepted, but for a few hairs at base. Head two-thirds breadth of prothorax, coarsely, closely and shallowly punctured, triangulately sulcate between antennæ; clypeus deeply, triangularly impressed; eyes distinctly smaller than in *antennatum*; antennæ robust, almost reaching apex of elytra, basal segment robust and strongly clavate, 2 to 4 definitely enlarged apically, second about one and a half times as long as wide, third slightly more than three times as long as broad and twice length of second. Prothorax more than one-third broader than long and one-fourth shorter than base of elytra, broadest well in front of middle; sides broadly arcuate in front, oblique and convergent behind; disk somewhat flattened above, without the amphora-like depression seen in *antennatum*, punctured like head, the base

deeply and completely margined. Elytra twice as long as broad, broadest back of humeri, narrowed apically, humeri prominent; sides slightly arcuate in front, thence broadly slightly emarginate to rounded apices; disk much flattened, coarsely, rather deeply and irregularly reticulate, two distinct and elevated longitudinal lines in paratype but not in holotype. Abdomen beneath finely, sparsely punctured, with well-marked impressions near margins of each segment, the pubescence finer and less erect than anteriorly. Legs very markedly and suddenly clavate, the dilated portions expanded transversely as well as laterally. Length 11 mm., breadth 4.5 mm.; paratype, length 14 mm., breadth 6 mm.

Holotype, No. 2537, Mus. Calif. Acad. Sci., collected by Mr. L. S. Slevin at Arbolado (mouth of Big Sur River), California, May 13, 1913, and one *paratype* from La Honda, southern San Mateo County, California, taken from California redwood, *Sequoia sempervirens* Endl., on December 15, 1922, by a Mr. Gladstone, and donated to the California Academy of Sciences by Dr. H. E. Burke.

This light-colored and very robust species I have long known through the holotype which was submitted to me some years ago by Mr. Slevin. At first it was believed to be immature, and it was not until I saw the second specimen that I realized my mistake. It is readily separated from all of our larger species by its color, robustness, hairiness, the robust antennæ with basal segments all slightly clavate, the decidedly clavate legs and the cribrate elytra.

***Callidium hardyi* Van Dyke, new species**

Narrow, elongate, subparallel, black, slightly shining, punctate rugose and clothed with a short, fine suberect cinereous pile. Head three-eighths breadth of prothorax, eyes hardly projecting beyond the parallel sides, occiput moderately coarsely and closely punctured, clypeus deeply triangularly impressed; antennæ reaching to last quarter of elytra, basal segment clavate, second small, third about five times as long as broad, the following gradually shorter and broader. Prothorax considerably narrower than base of elytra, almost quadrate, as long as broad, sides barely arcuate and narrowed behind, disk slightly convex and closely, rather coarsely punctured, with three small somewhat triangularly disposed callosities. Elytra almost three times as long as broad, sides straight, almost parallel, disk flattened, very coarsely, closely punctured and somewhat transversely rugose. Beneath rather coarsely, shallowly punctured in front, finely and sparsely on abdomen. Length 8.5 mm., breadth 2.5 mm.

Holotype, No. 2538, Mus. Calif. Acad. Sci., and four *paratypes*, taken from Douglas fir, *Pseudotsuga taxifolia* Britt. at

Garden Head, British Columbia, one of the paratypes, April 12, 1897, the others May 30, 1927. They were collected by Mr. George A. Hardy of the Provincial Museum of Natural History at Victoria, British Columbia, after whom I take great pleasure in naming it. One of the specimens differs by having the prothorax reddish yellow except for a discal and sternal black spot, and the bases of the front femora also reddish yellow.

This species has for some time been confused with *Callidium vile* Lec. which it greatly resembles and which likewise breeds in the Douglas fir, but it is very much larger, one-third longer, with eyes slightly more prominent and head more exposed (the head in *vile* generally greatly retracted); the antennæ much longer and narrower (in *vile* about reaching middle of elytra and with third segment never longer than four times breadth, the following also shorter than is the case in *hardyi*), the prothorax longer and narrower (in *vile* broader than long and almost equal in breadth to base of elytra), and the elytra having a well-defined punctuation, whereas this is to a great extent obliterated by the running together of the pits with a greater development of rugoseness in the other. This species might possibly be confused with the black phase of *Callidium hirtellum* Lec., but this latter is restricted to pines, is shorter and broader, more densely pilose, with a different type of antennæ, and otherwise is quite diverse.

MELANOPHILA CONSPUTA Lec.

This well-known buprestid is attracted in great numbers not only to recently scorched forest trees and to the neighborhood of lumber mills where there is burning slash and sawdust, but to burning petroleum (see Pan-Pac. Ent. III, 1926, p. 41), and sugar mills. During the hot days preceding October 12, 1927, great numbers of these were observed about the Western Sugar Refinery in San Francisco. They seemed to congregate about the vats and other places where the hot sugar or syrup was. The authorities of this plant tell me that this is of frequent occurrence during the hot spells of late summer and autumn.—Edwin C. Van Dyke.